

AMENDMENTS TO THE DRAWINGS

The Examiner has objected to the drawing under 37 C.F.R. § 1.83(a) for not depicting every feature of the invention as claimed. Applicants respectfully traverse the Examiner's rejection. However, while Applicants do not acquiesce in the Examiner's position, Applicants have added new Fig. 3 to depict the brake actuator, brake wheels, brake shoes, and brake drum. No changes have been made to Figs. 1 and 2 and Fig. 3 introduces no new matter. Fig. 3 is supported, for example, at page 3, line 15 through page 4, line 4.

REMARKS

Claims 1-42 are pending. By this Amendment, claims 2, 5, 16, 29, and 32 are canceled and claims 1, 15, 28, 37, and 42 are amended.

Claims 1, 15, 28, 37, and 42 have been amended to more particularly point out the claimed invention. No new matter is introduced by the claim amendments.

All of the pending claims stand rejected. Applicants respectfully request reconsideration of the rejections based on the following analysis.

Rejections under 35 U.S.C. § 112

The Examiner rejected claims 33-37, 39, and 42 under 35 U.S.C. § 112, second paragraph. Applicants have amended claim 28, such that the phrase "the bushing holder" includes proper antecedent basis. Applicants have amended claims 37 and 42 to comply with the Examiner's rejection. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 112 is overcome.

Rejection Over House under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-4 and 28-31 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 2,886,141 to House ("House"). Applicants traverse the Examiner's rejection and incorporate by reference their comments from the Amendment of March 10, 2005. Also, to advance prosecution of the application, Applicants have amended claims 1 and 28 to more particularly point out their claimed invention. Applicants respectfully request reconsideration of the rejection in view of the following comments.

With respect to claims 1 and 28, Applicants assert that the Examiner has not established a prima facie case of obviousness of Applicants' claimed invention over House, as the reference does not disclose all of the claimed features. As amended, claims 1 and 10 include the limitations of claims 5 and 32, respectively, each claim including a bushing holder, wherein the single elongate bushing is substantially enclosed within the bushing holder. While House does depict a crank support, the reference does not disclose a **cam shank**, a **single elongate bushing**, **and** a **bushing holder**, wherein the bushing rotationally supports the shank and the bushing is substantially enclosed within the bushing holder.

With respect to specific features noted by the Examiner in the claims depending from claims 1 and 28, these issues are not commented on further here because they are presently moot given the above analysis, although Applicants do not acquiesce in the Examiner's position. See MPEP § 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.") As such, Applicants respectfully request withdrawal of the rejection of claims 1-4 and 28-31 as being unpatentable over House.

Rejection Over Deibel under 35 U.S.C. § 103(a)

The Examiner rejected claims 1, 2, 4-6, 11, 13, 15, 16, 18, 19, 24, 28, 29, 31, and 38 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,497,037 to Deibel ("Deibel"). Applicants traverse the Examiner's rejection and incorporate by reference their comments from the Amendment of March 10, 2005. Also, to advance prosecution of the application, Applicants have amended claims 1, 15, and 28 to more particularly point out their claimed invention. Applicants respectfully request reconsideration of the rejection in view of the following comments.

Applicants assert that the Examiner has not established a prima facie case of obviousness of Applicants' claimed invention over Deibel, as the reference does not disclose all of the claimed features. As amended, claims 1 and 28 include the limitations of claims 5 and 32, respectively, each claim including a bushing holder, wherein the single elongate bushing is substantially enclosed within the bushing holder. Moreover, claims 1, 15, and 28, as amended, include the limitations of claims 2, 16, and 29, respectively, which require that the bushing be substantially coextensive with the S cam shank. While Deibel does depict a tube and a bearing within the tube, the reference does not disclose a cam shank, a single elongate bushing, and a bushing holder, wherein the bushing rotationally supports the shank and the bushing is substantially enclosed within the bushing holder. Moreover, Deibel does not teach or suggest a bushing, wherein the **bushing is substantially coextensive with an S cam shank.**

With respect to specific features noted by the Examiner in the claims depending from claims 1, 15, and 28, these issues are not commented on further here because they are presently moot given the above analysis, although Applicants do not acquiesce in the Examiner's position. As such, Applicants respectfully request withdrawal of the rejection of claims 1, 2, 4-6, 11, 13, 15, 16, 18, 19, 24, 28, 29, 31, and 38 as being unpatentable over Deibel.

Rejection Over Morris in view of Eksbergian under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-7, 15-20, 28-34, 39, and 41 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,240,806 to Morris ("Morris") in view of U.S. Patent No. 2,382,554 to Eksbergian et al. ("Eksbergian"). Applicants traverse the Examiner's rejection and incorporate by reference their comments from the Amendment of March 10, 2005. Also, to advance prosecution of the application, Applicants have amended claims 1, 15, and 28

to more particularly point out their claimed invention. Applicants respectfully request reconsideration of the rejection in view of the following comments.

Applicants respectfully assert that the assembly as depicted and described in Morris is the type of assembly that the present invention improves upon. Morris does not teach or suggest a single elongate bushing rotationally supporting a S cam shank, the bushing being substantially coextensive with the S cam shank and substantially enclosed within a bushing holder. Rather, Morris merely describes a brake assembly having dual bushings and alleged benefits of using dual bushings in combination with a cam tube. See, e.g., column 6, lines 9-27.

Moreover, Eksergian does not teach or suggest a single elongate bushing as claimed in claims 1, 15, and 28 of the present invention. The Examiner has pointed to a portion of Eksergian as teaching the use of a single elongate bearing. See page 2, line 72 - page 3, line 2. However, as can be seen in Fig. 2 below, **the "single elongated bearing portion" to which Eksergian refers is the portion of the lever arm that cooperates with the bearings**, portion 31a in Fig. 5. Eksergian proceeds to disclose an elongated bearing. See page lines 2-4. However, as can be seen in Fig. 5 below, the elongated bearing in the brake assembly is actually a bearing assembly having two bearing portions, bearings 1-1 and 1-2. This is contrasted to the brake assembly as depicted in Fig. 2, which has the same two-portion bearing assembly (bearings 1-1 and 1-2) and an additional bearing (bearing 2) provided in a distinct portion of the assembly. As such, the "elongated bearing" to which Eksergian refers is actually a two-portion bearing.

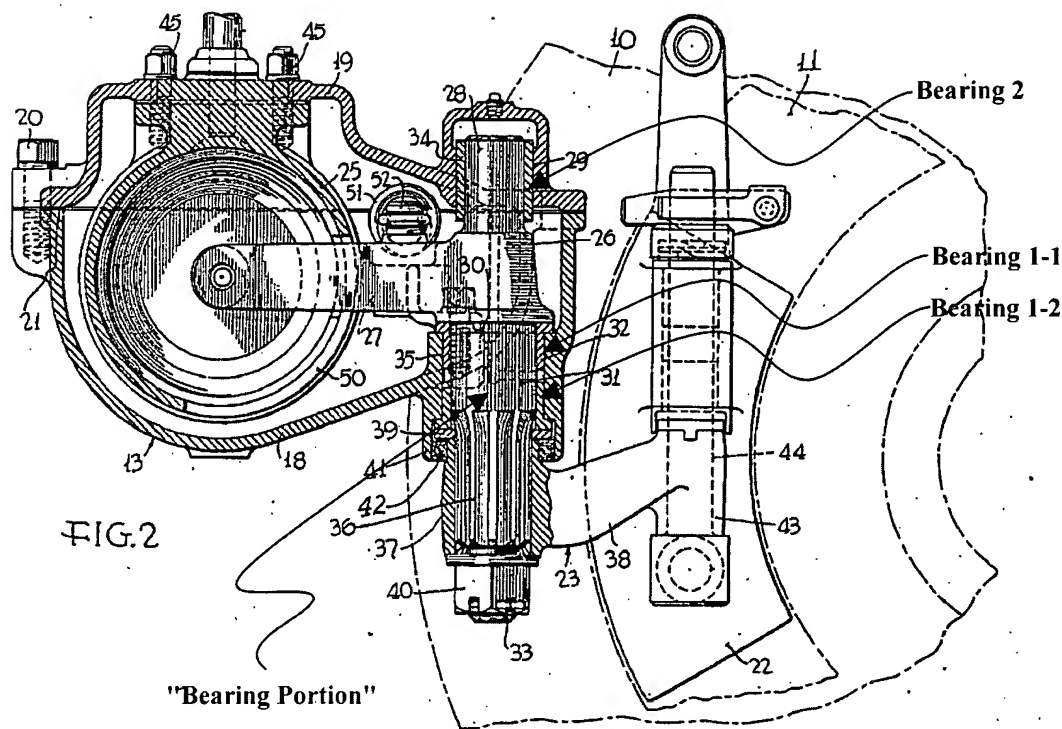


FIG. 2

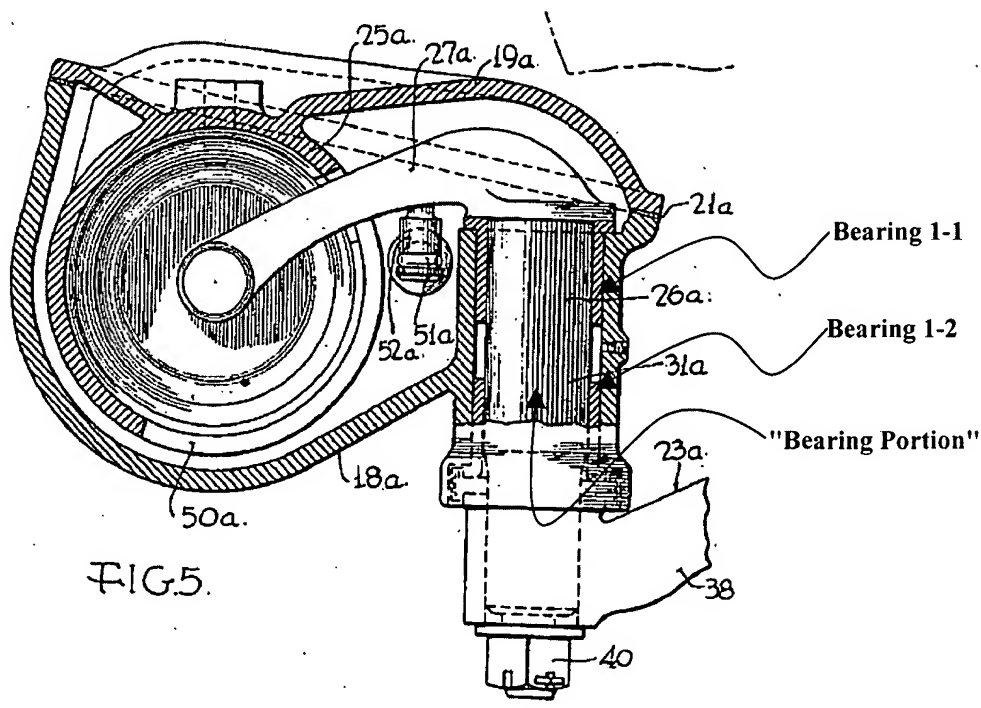


FIG. 5

As can be seen, neither Morris nor Eksergian teaches or suggests a single elongate bushing rotationally supporting a S cam shank, the bushing being substantially coextensive with the S cam shank and substantially enclosed within a bushing holder. Rather, both Morris and Eksergian teach two-part bushings or bearings, the very type of assemblies that the present invention improves upon.

However, even if the Morris in view of Eksergian did teach or suggest all of the elements of the claimed invention, which it does not, there is no motivation to combine the disclosure of Morris with that of Eksergian. There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998). However, the mere fact that references can be modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680 (Fed. Cir. 1990); MPEP § 2143.01; see also In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992) (Although a prior art device “may be capable of being modified to run the way the apparatus is claimed, there must a suggestion or motivation in the reference to do so.)

The Examiner has pointed to no suggestion or motivation for altering the bushing assembly of Morris with the lever brake assembly as disclosed in Eksergian. First of all, there is no suggestion or motivation of making the two-part bushing as disclosed in Morris to be an elongated "bearing" as disclosed in Eksergian, other than the unsupported statement it would have been obvious to do so. The Examiner has also provided no disclosure or suggestion, much less any motivation, in the Eksergian reference that would lead one skilled in the art to deviate from the two-part bushing assembly of Morris. Morris relates to an S cam brake assembly for a heavy-duty motor vehicle and Eksergian relates to a lever brake for a railway vehicle. Therefore,

the Examiner has failed to meet his burden of showing motivation or suggestion to combine the teachings of Morris with those of Eksbergian.

With respect to specific features noted by the Examiner in the claims depending from claims 1, 15, and 28, these issues are not commented on further here because they are presently moot given the above analysis, although Applicants do not acquiesce in the Examiner's position. As such, Applicants respectfully request withdrawal of the rejection of claims 1-7, 15-20, 28-34, 39, and 41 as being unpatentable over Morris in view of Eksbergian.

Rejection Over House in view of Asano under 35 U.S.C. § 103(a)

The Examiner rejected claims 12, 14, 40, and 42 under 35 U.S.C. § 103(a) as being unpatentable over House in view of U.S. Patent No. 4,346,535 to Asano et al. ("Asano"). Applicants traverse the Examiner's rejection and incorporate by reference their comments from the Amendment of March 10, 2005. Also, to advance prosecution of the application, Applicants have amended claims 1, 15, and 28 to more particularly point out their claimed invention. Applicants respectfully request reconsideration of the rejection in view of the following comments.

As stated above, House does not include all of the limitations of claims 1 and 28. Therefore, House also does not teach or suggest all of the limitations of claims 12 or 14 or claims 40 or 42, each of which includes the limitations of claim 1 and 28, respectively. Asano does not teach or suggest a single elongate bushing rotationally supporting a S cam shank, the bushing being substantially coextensive with the S cam shank. Nor does Asano teach or suggest a bushing holder, wherein the single elongate bushing is substantially enclosed within the bushing

holder. As such, Asano does not make up for the deficiencies of House with respect to claims 1 and 28.

Therefore, the Examiner has not established a prima facie case of obviousness of Applicants' claimed invention over House in view of Asano. As such, because House in view of Asano does not teach or suggest all of the limitations of claims 12, 14, 40, and 42, Applicants respectfully request withdrawal of the rejection of claims as being unpatentable over House in view of Asano.

Rejection Over Deibel in view of Asano under 35 U.S.C. § 103(a)

The Examiner rejected claims 12, 14, 25, 26, 27, 40, and 42 under 35 U.S.C. § 103(a) as being unpatentable over Deibel in view of Asano. Applicants traverse the Examiner's rejection and incorporate by reference their comments from the Amendment of March 10, 2005. Also, to advance prosecution of the application, Applicants have amended claims 1, 15, and 28 to more particularly point out their claimed invention. Applicants respectfully request reconsideration of the rejection in view of the following comments.

As stated above, Deibel does not include all of the limitations of claims 1, 15, or 28. Therefore, Deibel also does not teach or suggest all of the limitations of claims 12 and 14, claims 25, 26, and 27, or claims 40 and 42, each of which includes the limitations of claim 1, 15, and 29, respectively. Asano does not teach or suggest a single elongate bushing rotationally supporting a S cam shank, the bushing being substantially coextensive with the S cam shank. Nor does Asano teach or suggest a bushing holder, wherein the single elongate bushing is substantially enclosed within the bushing holder. As such, Asano does not make up for the deficiencies of Deibel with respect to claims 1, 15, or 28.

Therefore, the Examiner has not established a prima facie case of obviousness of Applicants' claimed invention over Deibel in view of Asano. As such, because Deibel in view of Asano does not teach or suggest all of the limitations of claims 12, 14, 25, 26, 27, 40, and 42, Applicants respectfully request withdrawal of the rejection of claims as being unpatentable over Deibel in view of Asano.

Rejection Over Morris in view of Eksergian and Asano under 35 U.S.C. § 103(a)

The Examiner rejected claims 12, 14, 25-27, 40, and 42 under 35 U.S.C. § 103(a) as being unpatentable over Morris in view of Eksergian and further in view of Asano. Applicants traverse the Examiner's rejection and incorporate by reference their comments from the Amendment of March 10, 2005. Also, to advance prosecution of the application, Applicants have amended claims 1, 15, and 28 to more particularly point out their claimed invention. Applicants respectfully request reconsideration of the rejection in view of the following comments.

As stated above, Morris in view of Eksergian does not include all of the limitations of claims 1, 15, or 28. Therefore, Morris in view of Eksergian also does not teach or suggest all of the limitations of claims 12 and 14, claims 25, 26, and 27, or claims 40 and 42, each of which includes the limitations of claim 1, 15, and 29, respectively. Asano does not teach or suggest a single elongate bushing rotationally supporting a S cam shank, the bushing being substantially coextensive with the S cam shank. Nor does Asano teach or suggest a bushing holder, wherein the single elongate bushing is substantially enclosed within the bushing holder. As such, Asano does not make up for the deficiencies of Morris in view of Eksergian with respect to claims 1, 15, or 28.

As such, because Morris in view of Eksbergian and Asano does not teach or suggest all of the limitations of claims 12, 14, 25-27, 40, and 42, Applicants respectfully request withdrawal of the rejection of claims as being unpatentable over Morris in view of Eksbergian and Asano.

Rejection Over Morris in view of Eksbergian and Boyer under 35 U.S.C. § 103(a)

The Examiner rejected claims 8-10, 21-23, and 35-37 under 35 U.S.C. § 103(a) as being unpatentable over Morris in view of Eksbergian and further in view of U.S. Patent No. 6,450,073 to Boyer et al. ("Boyer"). Applicants traverse the Examiner's rejection and incorporate by reference their comments from the Amendment of March 10, 2005. Also, to advance prosecution of the application, Applicants have amended claims 1, 15, and 28 to more particularly point out their claimed invention. Applicants respectfully request reconsideration of the rejection in view of the following comments.

As stated above, Morris in view of Eksbergian does not include all of the limitations of claims 1, 15, or 28. Therefore, Morris in view of Eksbergian also does not teach or suggest all of the limitations of claims 8-10, claims 21-23, or claims 35-37, each of which includes the limitations of claim 1, 15, and 29, respectively. Boyer does not teach or suggest a single elongate bushing rotationally supporting a S cam shank, the bushing being substantially coextensive with the S cam shank. Nor does Boyer teach or suggest a bushing holder, wherein the single elongate bushing is substantially enclosed within the bushing holder. As such, Boyer does not make up for the deficiencies of Morris in view of Eksbergian with respect to claims 1, 15, or 28.

Moreover, Boyer is non-analogous art, as it is directed to a bearing for a machine and not a brake assembly. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." MPEP § 2141.01(a). A machine bearing is not in the field of brake assemblies and is not relevant to the problem that Applicants were concerned and is therefore non-analogous art. As such, because it is non-analogous art, Boyer is not properly combinable with Morris and Eksergian.

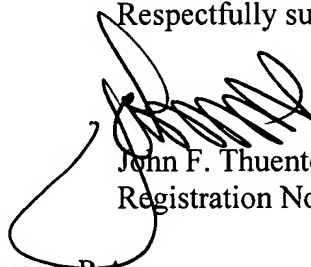
Because Morris in view of Eksergian and Boyer does not teach or suggest all of the limitations of claims 8-10, 21-23, and 35-37, Applicants respectfully request withdrawal of the rejection of claims as being unpatentable over Morris in view of Eksergian and Boyer.

Conclusion

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'John F. Thunte', is written over the typed name and registration number.

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